Weekly Summary Report
USEPA Oversight, Sauget Area 2, Sauget, IL
WA No. 224-RXBF-05XX / Contract No. 68-W6-0025

Week Ending Friday, December 24, 2004

This report summarizes the Interim Remedial Action (IRA) work conducted by Solutia and its contractors from December 18 through December 24, 2004, at Site R, Sauget Area 2. Ongoing IRA fieldwork consists of slurry stabilization, barrier wall cap construction, and stormwater management.

Contractors Onsite

Inquip Associates Inc. (barrier wall construction contractor)
URS (primary consultant for Solutia)

Work Performed This Week

Barrier wall cap construction, site grading, slurry stabilization, and demobilization of construction equipment continued during the week. These tasks are expected to continue as the primary site activities during the upcoming weeks.

Groundwater Migration Control System (GMCS)

The river elevation decreased during the week, dropping from 390.7 feet above mean sea level (amsl) on December 17 to 383.0 feet amsl on December 24. During the week, the GMCS pumping rate was adjusted periodically in an effort to maintain a zero or inward gradient across the barrier wall at each of four piezometer pairs. From December 18 until approximately 10:00 PM on December 19, the combined pumping rate of the extraction wells ranged from roughly 1,100 to 1,350 gallons per minute (gpm). At 10:00 PM on December 19, the combined pumping rate was increased to approximately 1,800 gpm. The rate was increased further, to approximately 2,200 gpm, during the evening of December 22.

Eight barrier wall piezometers, with four inside and four outside the barrier wall alignment, monitored the groundwater elevations adjacent to the barrier wall alignment during the week. Table 1 shows the river and piezometer water elevations measured at 3:00 PM on December 24, 2004.

ROD Performance Metrics (Gradient Across the Barrier Wall)

Two of the four piezometer pairs, PZ-1S/N and PZ-4E/W, displayed an inward gradient, toward Site R, across the barrier wall throughout the reporting period. An outward gradient, toward the Mississippi River, was observed across the barrier wall at PZ-2E/W and PZ-3E/W beginning at 3:00 AM on December 23. The outward gradient occurred as the Mississippi River elevation dropped at an increased rate during the afternoon of December 22. The river elevation decreased roughly five feet over a 48-hour time period, reaching a minimum elevation of 382.8 feet amsl at 6:00 PM on December 24. As noted above, the combined pumping rate of the GMCS was at approximately 2,200 gpm during this timeframe.

FFS Performance Metrics (Gradient Between Inside Wall Piezometers and River)

When compared to the Mississippi River elevation, water levels in three of the four piezometers (PZ-2E, 3E, and 4E) located inside the barrier wall displayed an outward gradient, toward the Mississippi River, during a portion of the reporting period. An inward gradient, toward Site R, was observed in PZ-1S throughout the reporting period. At PZ-2E and PZ-4E, an outward gradient was observed beginning at 9:00 AM and 8:00 AM, respectively, on December 23. These inside piezometers registered water elevations up to roughly two feet higher than the river elevation during the reporting period. At PZ-3E, an outward gradient was observed beginning at 10:00 AM on December 23, with a water elevation no more than one foot above the river elevation.

Table 1
River and Piezometer Water Elevations – December 24, 2004 (15:00)

	Elevation (ft above mean sea level)
River Level	382.96
Piezometer 1S – inside wall (northern-most pair)	382.69
Piezometer 1N – outside wall (northern-most pair)	385.91
Piezometer 2E – inside wall (north-central pair)	384.85
Piezometer 2W – outside wall (north-central pair)	382.71
Piezometer 3E – inside wall (south-central pair)	383.47
Piezometer 3W – outside wall (south-central pair)	382.63
Piezometer 4E – inside wall (southern-most pair)	384.88
Piezometer 4W – outside wall (southern-most pair)	385.84

Barrier Wall Cap Construction and Site Grading

The barrier wall cap is being constructed by excavating the uppermost three feet of barrier wall backfill, placing a 5-mil polyethylene plastic sheeting and Tensar UX1400HS geogrid over the top of the exposed barrier wall surface, and placing three feet of backfill material over the top of the geogrid. During the reporting period, construction of the barrier wall cap was completed along the northern leg of the barrier wall (stations 31+50 through 37+93). Also during the reporting period, construction of the barrier wall cap began between stations 18+50 and 19+25. In the upcoming week, cap construction will continue northward from station 19+25 toward station 26+00. The barrier wall cap has been completed between stations 26+00 and 31+50 and between stations 5+00 and 18+50.

Site grading activities have been nearly completed along the northern leg of the barrier wall, along Riverview Avenue. In the upcoming week, grading work will continue around station 31+50, in the vicinity of the GMCS control house.

Slurry

During the reporting period, slurry stabilization operations continued at the temporary spoils stockpile on top of the landfill. To stabilize slurry, cement was added to spoils in the middle portion of the temporary stockpile. These spoils are being reworked to dry out the material and also to promote drainage toward the northwest portion of the temporary stockpile, where

accumulated water will collect and be pumped into the nearby modutanks. No material from the northern containment area was transferred to the stockpile during the reporting period.

Stormwater

No stormwater management activities were performed during the reporting period.

Other Activities

Inquip continued to decontaminate and demobilize construction equipment on site during the week.